

DESCRIPTION OF OPERATING PRACTICES

As part of the operating procedures, Granite City Steel does the following to provide increased protection of facilities.

1. Operations include direct environmental control supervision.
2. Operating procedures oriented toward efficient use of landfill area with innate protection of the facility to eliminate environmental concerns.
3. Membrane covering:
 - initial protective layer of sand;
 - subsequent coverings of flue dust for added protection;
 - monitoring of all incoming wastes;
 - segregation of BOF dust to minimize dust generation;
 - placement of large bulky wastes, i.e. pipe, wood, etc. on the upper layers of the landfill to avoid possible punctures to the membrane liner.

EPA Region 5 Records Ctr.



320347

GRANITE CITY STEEL
LANDFILL DESIGN INFORMATION

The currently active section of the Granite City Steel landfill facility is part of a 100 acre area referred to as "Section III", which is owned by the Company. The portion of Section III for which design information is provided is approximately 17 acres in size, with a capacity of about 380,000 cubic yards. This section was developed with a flexible membrane liner and a leachate collection system as described below.

The landfill design is for the area-type method of filling. Minimal excavation was employed during the construction of the site, with a maximum of about four feet of excavation below existing grade level at the northeast corner area. This area is the lowest elevation of the landfill base.

Prior to installation of the fabric and synthetic membrane liner, the entire landfill surface was proofrolled to ensure stability. An earthen dike was constructed in compacted layers around the entire perimeter of the landfill to contain the waste materials and precipitation. A filter fabric, Trevira (8 oz/yd²), was then placed over the soil prior to installation of the flexible membrane liner. The liner material selected is a high density polyethylene (HDPE) membrane of 60 mil thickness.

A leachate collection system was installed consisting of two parallel lengths of 4-inch HDPE pipe at a 0.4% slope. The leachate piping was covered with gravel and filter fabric prior to the installation of the 12-inch sand cover. The leachate piping was designed to discharge into two sump manholes,

Plan sheet shows 6"

from which the leachate is automatically pumped to the Granite City Steel wastewater treatment system.

Additional design details concerning the landfill installation and the materials used can be found in Attachments 7 and 8.